

S/N 10/614,751

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

|             |  |                 |                         |
|-------------|--|-----------------|-------------------------|
| Applicant:  | John A. Hicks III et al.   | Examiner:       | Addy, Anthony S.        |
| Serial No.: | 10/614,751   | Group Art Unit: | 2617                    |
| Filed:      | July 7, 2003   | Docket No.:     | 60027.0181USU3/BS030002 |
| Title:      | System and Method for Providing a Single Telephone Number for Use with a Plurality of Telephone Handsets |                 |                         |

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**DECLARATION UNDER 37 CFR §1.131**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I, John A. Hicks III, of Roswell, Georgia, declare and say as follows:

1. I am a named inventor, together with Gregory N. Patterson and William L. Smith, of the above-indicated U.S. Patent Application Serial No. 10/614,751, filed July 7, 2003.
2. Exhibit A was prepared prior to April 14, 2003.
3. After preparation of Exhibit A, I prepared an invention disclosure form.
4. After preparation of the invention disclosure form I subsequently worked with patent counsel in the preparation and filing of the above-indicated U.S. Patent Application.

5. Slide 3 of Exhibit A to this Declaration shows a wireless access point wired to a data network. The wireless access point allows handsets to access a data network/softswitches for providing communications.

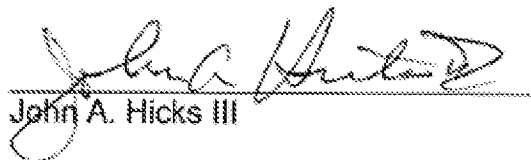
6. Slide 8 of Exhibit A shows a media gateway operatively connected to a softswitch, GMSC and GGSN such that handsets used for communication purposes in connection with the wireless access point can also be used for communication purposes via a cellular network.

7. A cordless handset is shown in slides 3 and 8 of Exhibit A. The cordless handset allows a user to communicate via a data network and a cellular network while having a single telephone number and handset.

8. A single telephone number for the handsets is shown in slide 8 of Exhibit A.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 9/21/07

  
John A. Hicks III

**Exhibit A**

# **Wireless/Wireline Residential Gateway Project Proposed Service Concept:**

**“Digital Freedom Service”  
A Digital Voice and Data Service**

**November 19, 2002**

**Draft  
“Work-in-Progress”**

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**AH 11/19/2002**

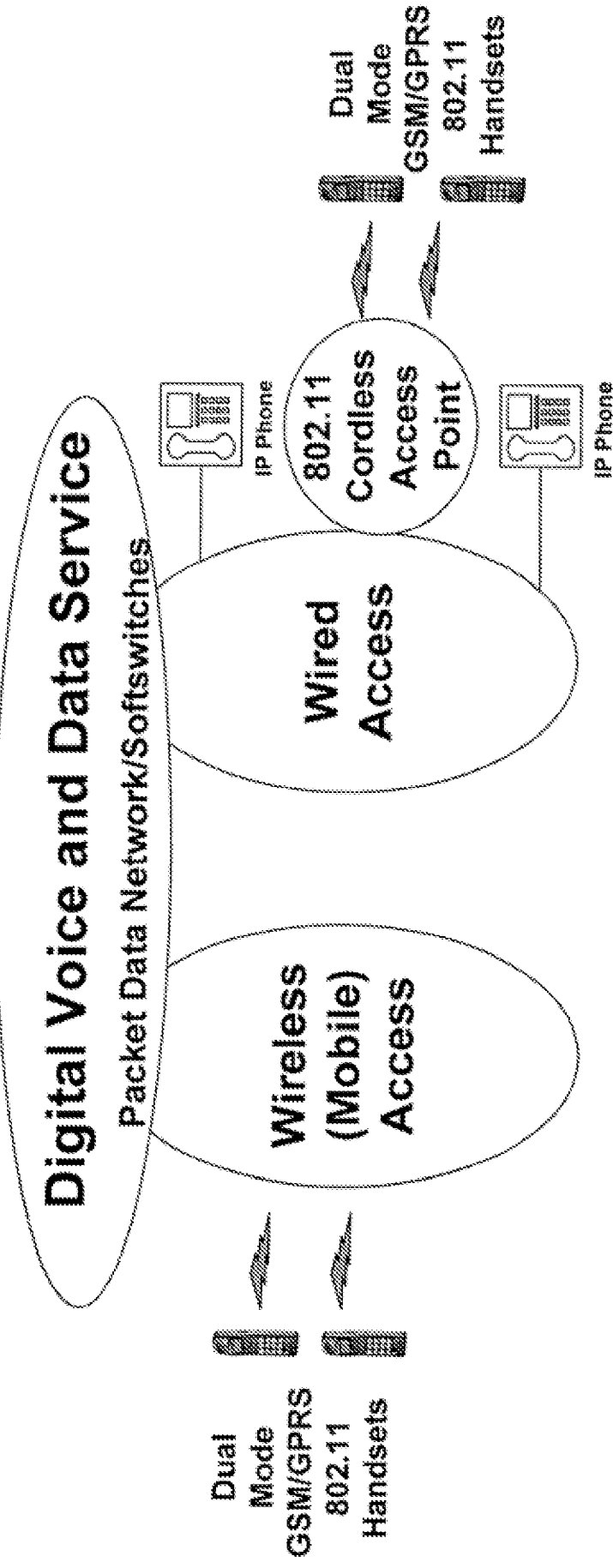
## **“Digital Freedom Service”**

- Integration of Cingular wireless (mobile) and BellSouth/SBC wireline services using VoIP derived line technology over DSL...targeted for DSL customers
- Cingular customer provided dual mode (GSM/GPRS/802.11b (or Bluetooth)) handset which operates as a cell phone outside of their home and a cordless IP phone in their home...same phone number
- In the cordless IP phone mode, the handset operates with VoIP derived line technology over DSL with a packet data connection to the Cingular network
- Automatic seamless handoffs between Cingular wireless (mobile) and BellSouth/SBC wireline networks
- Customer provided a bucket of LD minutes that is shared between wireless (mobile) and wireline (VoIP) access modes
- Supports multiple dual mode handsets and associated telephone numbers per household
- Customers optionally offered corded or cordless IP phones for accessing VoIP derived lines
- Customers able to place and receive calls in their homes on their dual mode handset or any IP phone

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# “Digital Freedom Service” High-Level Target Architecture



- Each customer will receive one or more dual mode (GSM/GPRS/802.11) handsets
- A single telephone number will be assigned to each handset for both Wireless Access and Wired Access
- When users are at home, they can answer or place calls on their dual mode GSM/GPRS/802.11 handset or any IP Phone
- The system design objective is to maximize traffic via Wired Access:
  - Wired Access is less expensive to provide than Wireless Access
  - Wired Access provides better voice quality than Wireless Access
  - Wired Access provides a significantly higher data rate than Wireless Access

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## **“Digital Freedom Service”**

### **Dual Mode Handset Assumptions**

- **Dual Modes of operation:**
  - **GSM/GPRS**
  - **802.11b**
- **SLP client and SIM card reside in handset**
- **Battery life will be acceptable...802.11 power consumption issues will be resolved**
- **Voice QoS over 802.11b will be established**
- **Handset cost will be competitive with comparable Bluetooth equipped handset**

# “Digital Freedom Service”

## Features

- Single personal phone number: Each dual mode handset has a single telephone number which is used for both wireless and wired access to the service
- Hand-out: When a user is engaged in a call outside their home using their dual mode handset and enters their home, the call is seamlessly changed from Wireless Access to “cordless” Wired Access
- Hand-in: When a user is engaged in a call inside their home using their dual mode handset and goes outside their home, the call is seamlessly changed from “cordless” Wired Access to Wireless Access
- Multiple users per household: The service supports multiple users per household wherein each user has a unique personal telephone number and their own dual mode handset
- Web-based subscriber administration: The customer has access to web-based administration of the service and a parent will be able to put limits, such as time of day and day of week and/or number of minutes, on each child's use of their telephone number/dual mode handset
- Answering incoming calls: When a user is in their home, incoming calls to the user may be answered on their dual mode handset or any IP Phone in the home
- Placing outgoing calls: When a user is in their home, outgoing calls may be made on their dual mode handset or any IP Phone in the home
- On-line directories: The service includes access to on-line directories from dual mode handsets and IP Phones, including personal, business and white page directories
- Personalized voice mail: The service includes personalized voice mail and the user can access their voice mail box from their dual mode handset or any IP Phone in their home

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## **“Digital Freedom Service”**

### **Customer Benefits**

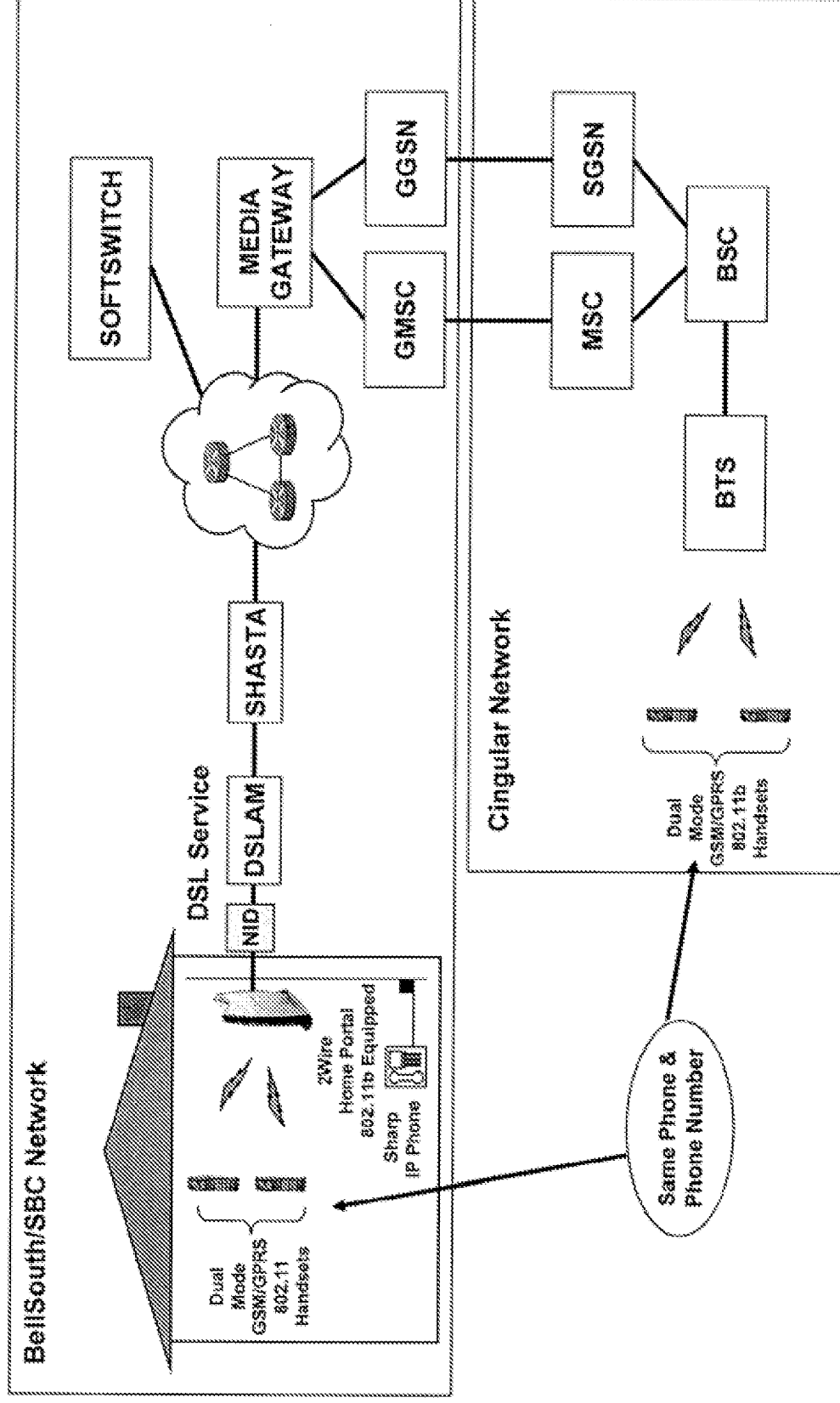
- **Single bill instead of separate wireless and wireline bills**
- **Single phone number for wireless and wired services**
- **Lower monthly bill than current combined wireless and wireline bills**
- **LD bucket of minutes shared by members of household**
- **Web-based administration of service (parental control)**
- **Improved quality of voice and data services at home**
- **Dual mode handset can be used anywhere, but with improved voice and data quality at home**
- **Optional use of IP phones at home**
- **Place and receive calls on the dual mode handset or IP phones at home**
- **Consistent user experience for wireless and wireline voice services**



## **“Digital Freedom Service” Cingular/BellSouth/SBC Benefits**

- Move minutes off of Cingular wireless (mobile) network onto BellSouth/SBC wireline network in residential areas...reduce need for Cingular capital investment
- Reduce Cingular’s customer churn (currently ~3% per month) by offering customers a compelling, “sticky” service
- Improve Cingular’s residential coverage and service quality
- Reduce BellSouth/SBC’s erosion of local phone service customer base to CLECs and MSOs due to stickiness of service
- Increase BellSouth/SBC deployment of DSL
- Avoid cellular versus VoIP derived line competition
- Establish a competitive advantage in the marketplace (difficult service to match)

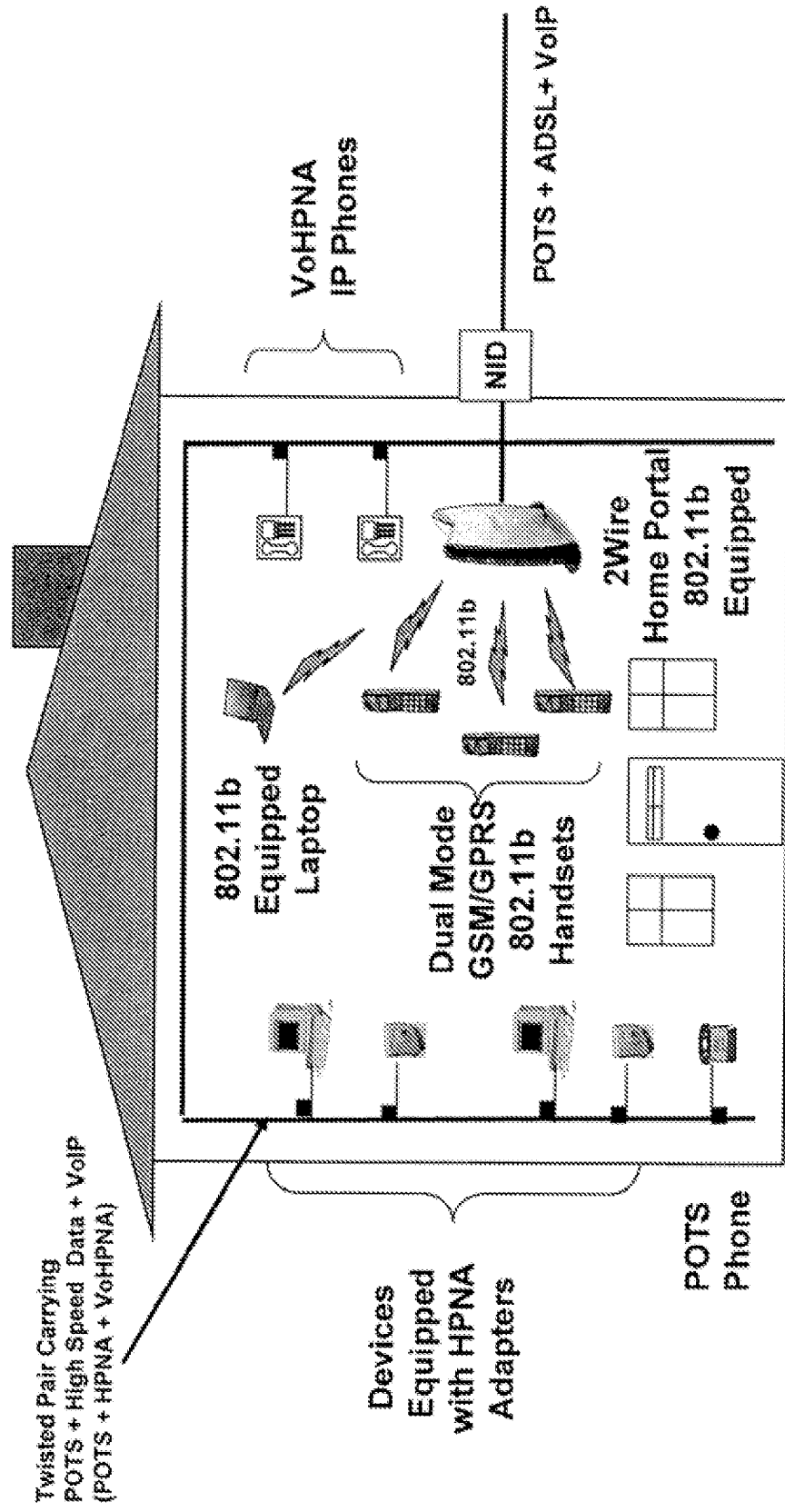
# “Digital Freedom Service” Architecture



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# “Digital Freedom Service” In-Home Architecture



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AH 11/19/2002

## Future Convergence

- Converge “Wireless/Wireline Residential Gateway” and “GPRS/LAN Integration” projects
- Upgrade 802.11 hotspots to support voice using VoIP derived line technology
- Dual mode GSM/GPRS/802.11b handsets can be used to “roam” onto BellSouth and SBC voice upgraded 802.11 hotspots
- Customers will be offered 802.11 voice/data plug-in cards for PDAs and laptops for use on voice upgraded 802.11 hotspots in accessing voice and data services
- Establish 802.11 hotspots which support voice in any location where there is a high concentration of cell phone users, such as in grocery stores, shopping malls, gasoline stations, entertainment venues, sports venues and home improvement stores...merchants will be offered revenue sharing for minutes of traffic carried through their 802.11 access point

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# Future Converged Service Offerings

